CLAIMS

1. A frame adapted to support a plurality of heat exchangers one in front of another in the direction of flow of cooling air on vehicle support members, at least one of said heat exchangers being generally box shaped with projecting components on opposite sides thereof, comprising:

two vertical walls interconnected at upper and lower ends by two transverse walls;

cross braces between said walls;

fastening points on said walls adapted to fasten said heat exchangers to said frame;

wherein said vertical walls include outwardly extending bulging sections, said bulging sections each including

an outer portion adapted to be secured to said vehicle support members to support said frame thereon, and

an inner portion defining a space between vertical wall sections above and below said bulging section and adapted to receive said projecting components of said at least one heat exchanger.

2. The frame of claim 1, wherein said outer portions of said bulging sections include downwardly facing surfaces adapted to be secured on top of said vehicle support members.

3. The frame of claim 1, wherein said frame is adapted to support a first of said heat exchangers on one side of said cross braces and to support a second of said heat exchangers on the opposite side of said cross braces.

4. The frame of claim 1, wherein the cross braces are between two of said heat exchangers, and include cross brace sections between said vertical wall sections above and below said bulging section.

5. A heat exchanging element for a vehicle including a plurality of heat exchangers, one in front of another in the direction of flow of cooling air, comprising:

first and second heat exchangers;

connecting flanges on each of said heat exchangers, each of said connecting flanges including an opening therethrough;

a supporting frame, including

two vertical walls interconnected at upper and lower ends by two transverse walls,

cross braces between said walls,

supports securable to support members on said vehicle, and

at least one fastening opening on said walls for each of said heat exchangers,

wherein each of said fastening openings is aligned with said flange openings; and

connectors connecting each of said fastening openings to said aligned flange openings, said connectors including a head and a stem with

an expandable end opposite said head retaining said connectors in said aligned openings.

6. The heat exchanging element of claim 5, further comprising:

outwardly extending bulging sections in said vertical walls, said bulging sections each including said supporting frame supports and defining a space between vertical wall sections above and below said bulging section; and

inlet and outlet connectors of said heat exchangers positioned in said space defined by said bulging sections.

7. The heat exchanging element of claim 5, wherein the cross braces are between two of said heat exchangers and include cross brace sections between said vertical wall sections above and below said bulging section.

8. The heat exchanging element of claim 5, wherein said cross braces comprise spaced flat members interconnected by flat bracing members, said flat members and flat bracing members generally lying in planes parallel to the direction of flow of cooling air through said heat exchangers.

9. The heat exchanging element of claim 8, wherein at least some of said flat members and flat bracing members are oriented to direct air flow toward the corners of said supporting frame.

10. The heat exchanging element of claim 5, further comprising mounts on said frame cooperating with hooks on said heat exchangers to support said heat exchangers on said frame.

11. The heat exchanging element of claim 10, wherein:

said mounts and cooperating hooks support said heat exchangers on said frame in one direction; and

said connectors support said heat exchangers on said frame in a second direction;

wherein said first and second directions are not parallel to one another.

12. The heat exchanging element of claim 11, wherein said mounts and cooperating hooks supporting one of said heat exchangers permit thermal expansion in a direction transverse to the stem of the connector connecting the flange opening of said one heat exchanger to said frame.

13. A frame adapted to support a plurality of heat exchangers one in front of another in the direction of flow of cooling air, said cooling air flowing from a front side of said frame to a back side across heat exchange surfaces of said heat exchangers supported between said frame sides, comprising:

two vertical walls interconnected at upper and lower ends by two transverse walls, said walls extending between said front and back sides;

cross braces between said walls;

fastening points on said walls adapted to fasten said heat exchangers to said frame;

supports securable to support members on a vehicle; and

a fan shroud securable to one of said fastening points at said back side of said frame by at least one releasable connector.

14. The heat exchanging element of claim 13, further comprising mounts on said frame cooperating with hooks on said fan shroud to support said fan shroud on said frame.

15. The heat exchanging element of claim 14, wherein said mounts, cooperating hooks and at least one releasable connector support said fan shroud on said frame in said direction of cooling air flow, and further comprising a fan shroud outer edge overlapping said walls to support said fan shroud on said walls transverse to said direction of cooling air flow.